



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,819	03/19/2004	Markus Gilch	2003P02190 US	7098

7590 12/19/2005

Martin A. Farber
Suite 473
866 United Nations Plaza
New York, NY 10017

EXAMINER

FORD, JOHN K

ART UNIT	PAPER NUMBER
----------	--------------

3753

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/804,819	Applicant(s) GILCH ET AL.	
	Examiner John K. Ford	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/26/05
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16, 18, 19, 20, 21, 23-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16, 18-21 and 23-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Applicant's amendment of September 26, 2005 has been careful consideration. Applicant is correct in stating that the reference to specific claim numbers has been eliminated from the specification by the preliminary amendment, a fact that was overlooked by the Examiner in preparing the previous communication. Applicant's comments about the references are addressed in the rejections that follow.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 16, 18-21 and 23-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is no original disclosure to support the newly added limitation that the "air mass flow rate sensor" measures the actual value of the mass of air flowing into the air conditioning system (claim 16) or the "rate of mass of airflow" (claim 27). Applicant argues (remarks 09/26/05, page 8, lines 3-9) that none of the primary references to Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 (supplied by applicant un-translated) measure the actual mass of the airflow in units of "kilogram/hour" (or its equivalent), thus they are not air mass flow meters. The only

Art Unit: 3753

problem with this argument is that nothing in applicant's original specification, claims or drawings that supports the hypothesis that applicant's own air mass flow meter could accomplish this result (i.e. measuring the mass of airflow in "kilogram/hour"). In fact, on page 7, lines 14-19, the specification simply states that sensors of the type used in controlling internal combustion engines, that applicant acknowledges are well known, can be used as mass flow sensors or less precise sensors could be used. The point is that applicant has not specified any particular type of mass airflow sensor let alone one that measures the mass flow of air in "kilogram/hour." The fact is that applicant has disclosed no particular type of air mass flow sensor at all.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 16, 18, 21 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 (supplied by applicant un-translated) or the admitted prior art on page 2, lines 6-8 of applicant's specification that the "use of air mass flow rate sensors is known in the field of motor vehicle technology for measuring the sucked-in fresh air in the intake

Art Unit: 3753

tract” and further in view of any one of Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987).

In each of the three primary references (Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 (supplied by applicant un-translated)), the actual value of air flowing into the air-conditioning system is measured by a sensor in each of these references that the Examiner deems to be an air mass flow sensor, because these sensors each perform the function called forth in the claims of measuring the mass of air flowing into the system. For example, Anderson uses a spring-loaded vane 34 to measure airflow. As evidenced by Redington (USP 6,575,046), spring-loaded vanes such as disclosed by Anderson are inherently responsive to the mass flow rate of air through the air duct (“air weight (mass) rather than air volume”, Redington, col. 2, lines 21-29, incorporated here by reference). As evidenced by Mei (USP 2005/0088270) in Figures 4 and 5 sensing a differential pressure across a restriction in the fluid flow conduit gives a mass flow rate. Similarly, Derwent publication 2004-643946 shows a differential pressure type mass flow meter in a climate control plant, ample evidence that Steinmann’s differential pressure device and the differential pressure device of DE 4100817 are inherently both measuring air mass flow.

Because applicant’s specification contains no disclosure of precisely what constitutes an air mass flow rate sensor, the Examiner is at a loss to determine precisely which type, of a myriad of types of mass flow sensors in the prior art, to search

Art Unit: 3753

for. If applicant doesn't agree with the Examiner on this point, he has only to look to his own specification for the lack of specificity. Applicant was asked in the previous office action to provide a translation of DE 4100817, if available to applicant. That request was ignored.

The air mass flow sensor admitted to be prior art on page 2, lines 6-8 of the specification (whatever type that is) to accurately measure the mass of air entering the motor vehicle would have been obvious to one of ordinary skill in the art to use to measure air mass flow instead of the sensors disclosed by Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 (supplied by applicant un-translated) since this advantageously appears to be some sort of "off-the-shelf" component. As well, the Examiner previously required full disclosure of what exactly this admitted prior art is, to aid in further examination of this application and that request was ignored.

To have used the air flow sensing system of the prior art to Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 (supplied by applicant un-translated), or the admitted prior art air mass flow rate sensor of page 2, lines 6-8 of the specification, in any one of the systems of Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987) to keep the amount of air flow from the blower a constant regardless of changing pressure conditions at the fresh air and recirculation air inlets in each of Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et

al (USP 5,934,987) would have been obvious to one of ordinary skill in the art to secure occupant comfort by maintaining the flow rate of air into the compartment constant.

Regarding claim 27, the location of the mass flow sensor at the specified location is not only obvious, but is necessary, if the Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 system is to have realized its respective goal of keeping the airflow constant when placed into the Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987) prior art. To have placed the airflow sensor in another location would defeat the whole object or purpose behind the Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 references.

Regarding claims 16 and 27, each of Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987) have these two inlet flows (external and recirculation) and have flaps controlling the external and recirculation proportions.

Regarding claim 18, the Steinmann (USP 4,508,021) or Anderson (USP 3,028,800) or DE 4100817 (supplied by applicant un-translated) systems would each cause this to happen when placed into any one of Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987).

Regarding claims 23 - 26, each of Eguchi et al (USP 4,437,391) or Fukui et al (USP 4,352,321) or Kettner (USP 5,971,287) or Baruschke et al (USP 5,934,987) measure "characteristic variables" given that applicant has put no limits on what these are. For example, Eguchi monitors pollution using sensor 4, Fukui monitors pollution using a gas sensor 1a, Kettner, temperature and RH at various locations (2a, 2b, 3a, 3b, 5a and 5b) as well as pollution (col. 2, line 35) and Baruschke et al (USP 5,934,987), both moisture (5, 5a), pollution (6) and temperature (8, 9) to control the fresh air/recirculation air flap 1.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over any of the prior art as applied to claim 18 above, and further in view of Passur (USP 2,224,407).

Passur teaches two fans, including a main fan 6 analogous to the one shown in the prior art references and a booster fan 8 and adjustable flap 19 in the fresh air duct to increase the fresh airflow and control it. To have used this type of dual fan/adjustable flap in the prior art to improve the outdoor airflow control would have been obvious to one of ordinary skill in the art.


Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 3753

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to John K. Ford at telephone number 571-272-4911.



John K. Ford
Primary Examiner